

In The Claims:

1. (Currently Amended) Apparatus for determining a current location of a user client in an electronic interaction with a server over a network having a plurality of nodes at different locations, the apparatus comprising:

a network node data gatherer for obtaining, during a direct communication interaction with said server initiated by at the instigation of said user client and according to said direct communication interaction, from the current vicinity of said user client, network node information, said network node data gatherer being placed in said server and;

a network node data correlator for correlating said network node information with a network node location map, thereby to provide said server with a said current location for said user client, wherein said network node location map is a map of said network, and said network node information is an identification of an Internet gateway used by said user client, and said identification of said Internet gateway is an IP address of said gateway, and wherein said network node data gatherer comprises a request inducer unit for causing said user client to request a connectible entity from the server, and said network node data gatherer is operable to intercept network node data from said Internet gateway following said request.

2. (Currently Amended) The apparatus of claim 1, further comprising a digital media distributor associated with said network data correlator and operable to use said current location to govern digital media distribution to said user client.

3. (Currently Amended) The apparatus of claim 1, further comprising a location confirmation unit for separately determining that said current location provided by said client network node information is part of a current communication path to said user client.

4-51. (Canceled).

52. (Original) Apparatus according to claim 1, further comprising a line measuring unit for measuring connection line qualities, thereby to obtain said location information.

53. (Original) Apparatus according to claim 52, said line measuring unit comprising a connection comparison unit for comparing line qualities of different connections.

54. (Original) Apparatus according to claim 52, said qualities being ones of a group comprising: signal to noise ratio, specific frequency attenuation, end path delay, echo characteristics, delay variance, and compression artifacts.

55. (Currently Amended) Method for determining current a location of a user client in an electronic interaction with a server over a network having a plurality of nodes at different locations, the method comprising:

obtaining, from the current vicinity of said user client, during a direct communication interaction initiated by at the instigation of said user client with said server and according to said direct communication interaction, network node information, said network node data gatherer being placed in said server, and

correlating said network node information with a network node location map, thereby to provide said server with a said current location for said user client,

causing said user client to request a connectible entity from the server, and

intercepting network node data from said Internet gateway following said request,

wherein said client network node information is an identification of an Internet gateway used by said user client, and said identification of said Internet gateway is a DNS of said gateway.

56. (Currently Amended) The method of claim 55, further comprising separately determining that said current location provided by said client network node information is part of a current communication path to said user client.

57-59. (Canceled)

60. (Previously Presented) The method of claim 55, further comprising assigning a host name to said connectible entity for each user client request, thereby to cause said Internet gateway to attempt to locate said hostname and reveal its identity in the course thereof.

61. (Previously Presented) The method of claim 55, wherein said assigning a host name comprises assigning a unique host name.

62. (Original) The method of claim 60, said server comprising a master DNS, said method comprising said master DNS giving to said user client an IP address upon requesting by said user client.

63. (Original) The method of claim 62, said server further comprising at least one secondary DNS being operable to provide IP addresses to said user client.

64. (Original) The method of claim 60, comprising assigning to said connectible entity a host name for each transaction request.

65-78. (Canceled).

79. (Currently Amended) A method for determining a current location of a user client in an electronic interaction with a server over a network having a plurality of nodes at different locations, the method comprising:

obtaining, from the current vicinity of said user client, during a direct communication interaction initiated by at the instigation of said user client with said server and according to said direct communication interaction, network node information, said network node data gatherer being placed in said server, and

correlating said network node information with a network node location map, thereby to provide said server with a current location for said user client, said method further comprising making a request for a user telephone number, said method being operable to make contact using said telephone number to give a user an identification for returning via said user client, said map being a physical map usable to correlate a physical location to a telephone number.

80. (Currently Amended) Method for determining a current location of a user client in an electronic interaction with a server over a network having a plurality of nodes at different locations, the method comprising:

obtaining, from the current vicinity of said user client, during a direct communication interaction initiated by at the instigation of said user client with said server and according to said direct communication interaction, network node information, said network node data gatherer being placed in said server, and

correlating said network node information with a network node location map, thereby to provide said server with a current location for said user client, the method further comprising making a request for a user telephone number, said method being operable to verify contact via said telephone number by giving a user a identification via said network for returning via a direct connection using said telephone number, said map being a physical map usable to correlate a physical location to a telephone number.

81. (Original) The method of claim 79, further comprising the step of obtaining a modem telephone number of said user client, thereby to attempt to establish contact with said user client.

82. (Original) The method of claim 80, further comprising requesting the user to contact a telephone number, thereby to confirm contact via said telephone number by giving a user an identification for looping back using said user client and a connection made using said telephone number.

83. (Original) The method of claim 82, further comprising an authentication stage of receiving a connection from the modem of said user client, thereby to attempt to establish contact with said user client.

84. (Original) The method of claim 82, further comprising sending authentication information via said connection for return via said network connection.

85. (Original) The method of claim 82, comprising sending authentication via said network for return via said direct connection.

86. (Original) The method of claim 55, further comprising:
trace routing functionality for determining a network node distance and route of a user client by sending and attempting to receive response messages having varied time to live values,

and correlating between said determined location and said determined network node distance and route.

87. (Original) The method of claim 86, further comprising adding data of further nodes to said correlation to improve accuracy.

88. (Original) The method of claim 55, comprising sending a loadable entity to said receiving client for carrying out trace routing to said server from said user client and sending results of said trace routing to said server.

89. (Currently Amended) A method for determining a current location of a user client in an electronic interaction with a server over a network having a plurality of nodes at different locations, the method comprising:

~~at a direct communication interaction initiated by at the instigation of said user client with said server, locating a software agent at a network access node to gather data of a receiving client connecting via said node, said locating being based on said communication interaction, said network node data gatherer being placed in said server;~~

obtaining, from the current vicinity of said user client, network node information; and

correlating said network node information with a network node location map, thereby to provide said server with a said current location for said user client.

90. (Original) The method of claim 89, wherein said network access node is a digital network access node.

91. (Original) The method of claim 89, said digital network access node being a digital line access multiplexer.

92. (Original) The method of claim 55, said network node being an internet service provider comprising a plurality of servers, the method further comprising determining additional information of said user client from an individual one of said plurality of servers with which it connects.

93. (Original) The method of claim 92, further comprising obtaining said additional information by correlating with a user database of the Internet service provider.

94. (Original) The method of claim 55, further comprising building a database of user clients to correlate obtained location data with other data concerning said user clients.

95. (Original) The method of claim 55, wherein said network node information is obtained in response to an interaction request from said user client and comprising a step of correlating said network node information with said interaction request by sending said user client a hostname to use in a data request with said network node information.

96. (Currently Amended) Apparatus for determining a current location of a user client in an electronic interaction with a server over a network having a plurality of nodes at different locations, the apparatus comprising:

a network node data gatherer for obtaining from the current vicinity of said user client, during a direct communication interaction initiated by at the instigation of said user client with said server and according to said direct communication interaction, network node information, said network node data gatherer being placed in said server, and

a network node data correlator for correlating said network node information with a network node location map, thereby to provide said server with a said current location for said user client,

and wherein said network node location map is a map of said network and said client network node information is an identification of an Internet gateway used by said user client, wherein said identification of said Internet gateway is an IP address of said gateway and said network node data gatherer comprises a request inducer unit for causing said user client to request a connectible entity from the server, and wherein said network node data gatherer is operable to intercept network node data from said Internet gateway following said request.

97. (Currently Amended) The apparatus of claim 96, further comprising a digital media distributor associated with said network data correlator and operable to use said current location to govern digital media distribution to said user client.

98. (Currently Amended) The apparatus of claim 96, further comprising a location confirmation unit for separately determining that said current location provided by said client network node information is part of a current communication path to said user client.

125. (Currently Amended) Apparatus for determining a current location of a user client in an electronic interaction with a server over a network having a plurality of nodes at different locations, the apparatus comprising:

a network node data gatherer comprising a request for a user telephone number to be obtained during a direct communication interaction initiated by at the instigation of said user client with said server and according to said direct communication interaction, said network node data gatherer being placed in said server.

a network node data correlator for correlating said user telephone number with a physical map of said telephone network, said map being usable to correlate a physical location to a telephone number network node location map, thereby to provide said server with a said current location for said user client, and

a digital media distributor associated with said network data correlator and operable to use said current location to govern digital media distribution to said user client, said apparatus further comprising an authentication unit being operable to confirm contact via said telephone number by giving a user an identification for looping around said network and said user client and a connection made using said telephone number.

126. (Original) Apparatus according to claim 125, said authentication unit being operable to obtain a modem telephone number of said user client, thereby to attempt to establish contact with said user client.

127. (Previously Presented) Apparatus according to claim 125, said authentication unit being operable to obtain a modem telephone number of said user client and to determine that contact is established with said user client using said given modem number to provide a direct connection.

128. (Original) Apparatus according to claim 127, said authentication unit being operable to send authentication information via said direct connection for return via said network connection.

129. (Original) Apparatus according to claim 127, said authentication unit being operable to send authentication via said network for return via said direct connection.

130. (Currently Amended) Apparatus according to claim 125, further comprising a line measuring unit for measuring connection line qualities, thereby to obtain confirmation of said current location.

131. (Original) Apparatus according to claim 130, said line measuring unit comprising a connection comparison unit for comparing line qualities of different connections.

132. (Original) Apparatus according to claim 130, wherein said qualities include any ones of a group comprising: signal to noise ratio, specific frequency attenuation, end path delay, echo characteristics, delay variance, and compression artifacts.

133. (Original) Apparatus according to claim 125, comprising an interface for interfacing to a telephone number resolving system, thereby to obtain service level conditions associated with particular telephone numbers.

134. (Original) Apparatus according to claim 125, said network node data gatherer comprising a request for the user to contact a telephone number, said apparatus being operable to confirm contact via said telephone number by giving a user an identification for looping back to said apparatus using said user client and a connection made using said telephone number.

135. (Original) Apparatus according to claim 125, further comprising an authentication unit contactable by the modem of said user client, thereby to attempt to establish contact with said user client.

136. (Original) Apparatus according to claim 135, said authentication unit being operable to send authentication information via said connection for return via said network connection.

137. (Original) Apparatus according to claim 135, said authentication unit being operable to send authentication via said network for return via said direct connection.

138-144. (Cancelled).